types of questions. Has he been taking his medication? How close is his blood anticonvulsant level to an alleged therapeutic range? If multiple agents are being used and the patient becomes toxic, which is the responsible drug? More generalized information is available, such as the half-life of the major anticonvulsant agents. Data of this type are essential for the intelligent use of a compound, as for example in strategies designed to rapidly achieve a therapeutic level with diphenylhydantoin or in determining the feasibility of administering the entire daily phenobarbital dose at one time.

The review indicates the difficulties that the clinician might experience with the use of anticonvulsant blood level determinations. These difficulties may be of different orders, ranging from problems of accuracy and reproducibility in clinical laboratories to inappropriate action based on the laboratory data. It is becoming apparent that the "therapeutic range" is quite broad, with a great deal of individual variation. This leads to the second aphorism in caring for patients with seizures: "Don't treat the laboratory slip!" (The first aphorism was, "Don't treat the EEG!")

A final warning about the use of anticonvulsant blood level determinations is that the technique can be construed by both the physician and the patient as a type of "lie-detector" test. The implication of finding low levels in the presence of reasonably *prescribed* doses is that the patient may not be taking his medication. A further inference that is dangerous is that the patient is therefore poorly motivated, unreliable, and possibly ungrateful. Gas-liquid chromatography is not a personality test.

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The Price of Quality In Medical Care

IN RECENT YEARS there have been many efforts to identify and define what is meant by quality in medical and health care. There have been studies, discussions, symposia and workshops of many kinds and under many auspices. Medical associations, schools of public health, governmental agencies and educators have all taken a crack at it. But what has so far emerged has been substantially less than what is needed. Meanwhile the costs of health care, with or without evidence of quality, have risen alarmingly and in consequence costs are beginning to displace quality as the primary concern. Somehow the price of quality must be identified lest it be lost.

The current effort to come to grips with this is to be found in the Professional Standards Review Organization (PSRO) concept which has been enacted into law. As we understand it, PSRO's are to develop standards for medical services which will presumably assure quality and also become the criteria upon which determinations of payment will be made and through which cost can be controlled. This is simple enough in concept; in fact it closely parallels the method used in both government and industry, where specifications are developed for the purchase of goods or services, usually from the lowest bidder. On the surface this sounds good. All that is necessary is to agree on some professional standards which will reflect the desired quality and then to control costs by monitoring the utilization of the services.

However, there are reasons to believe that this approach cannot succeed without sacrifice of the very essence of quality. The reasons depend on the fact that at least three of the most important elements in medical care are independent variables which defy standardization. The first of these independent variables is the art and science of medicine itself, which is always changing and improving with experience and scientific and social progress. The second is the patient or the recipient of these ever-changing and improving services. Each person who is given care is different from every other person, each has a unique genetic endowment and

a unique life experience, and therefore often unique health care needs. A third element which is equally an independent variable in health care is the process by which the first two are made to interact with one another to overcome illness or improve health in a given person in a given situation. This essential process involves freedom for the physician to select the most appropriate care and services from the ever-changing and improving resources of the art and science of medicine, and the freedom of the fully informed patient to participate in decision-making with respect to his own care. Quality in medical care requires that each of these variables be separately considered in each individual practice situation, and therefore quality is lost roughly to the extent standardization takes place.

However, we are now entering a period when, by law, standardization and specification of medical services will be attempted in the name of controlling costs. Unfortunately, not only is quality likely to be compromised for the reasons stated, but costs of care will probably be increased. For one thing, no one will receive less costly care than that determined to be standard, while many will need more. This will increase costs. And for another, the apparatus to establish, monitor, enforce and perhaps change standards and specifications can only be cumbersome and additionally expensive. An enormous amount of energy and money is certain to be invested before the effects are known.

But our concern in this editorial is with the price of quality and with how quality can be strengthened in an atmosphere of growing concern with costs. It is suggested that the price of quality can be derived from the characteristics of the three fundamental but intrinsically independent variables in medical care discussed above. If this be the case, the price includes the following. First, there must be a dynamic, changing and improving art and science of medicine. This requires active support of research, education and continuing education. Second, there must be full recognition of the uniqueness of every person and all that this implies for medical care, personal health and well-being, and for social progress. This element of quality requires the active support of the concept of biologic and social individuality and the right to self-fulfillment and the responsibility to respect the rights of others in an increasingly interdependent and collectively oriented society. Third, there must be freedom in medical care, freedom to choose and to select what had best be done in a given circumstance—freedom for both patient and physician to do this. The recognition of this freedom as an element of quality in medical care imposes responsibility. There is the responsibility of assuring availability and access to the best in the science and art of medicine for both physician and patient, there is a responsibility for both physician and patient to be well-informed, and there is a responsibility of eternal vigilance without which freedom in medical care as elsewhere will certainly be lost. There cannot be quality without responsibility.

If such is the price of quality in health care, what can be done now to bring public concern with quality more nearly into balance with present concern with costs? Obviously public pressure to pay the price for quality must become at least equal to the public pressures to control costs. It is suggested that what is now needed is a vigorous and powerful advocacy of the public interest in the *nature* of quality and the *price* of quality in medical and health care. Both the nature and the price must be clearly identified and public opinion convinced that the price is necessary and worth paying. This is an opportunity for organized medicine. The foundations for such an advocacy are to be found in many existing commitments and programs. But the scope and tempo of the effort must be vastly increased until a critical mass of public opinion is aroused and then brings its enormous power to bear on improving quality as well as on controlling costs in medical care.

—MSMW

Counseling About Sickle Cell

THE ARTICLE, "Identifying and Counseling Patients with Sickle Cell Trait," by Dr. W. Byron Smith et al, which appears elsewhere in this issue, offers a good review and bibliography of screening methods with useful comments on determining appropriate target populations and the content of genetic counseling. However, the authors' comments on recent legislation require clarification. They note that the California Legislature has passed a bill dealing with sickle cell anemia. This bill, AB 2786, introduced by Assemblyman Leon